

‘Critical minerals’ and sacrifice zones

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These days there’s much simultaneous hand-wringing and drooling over the looming/arrived/arriving climate crisis. The mining industry in particular is giddily stepping up to heroically offer technofixes in the form of wind turbines, solar panels, and batteries for grid storage—all facilitated by lithium, rare earth elements (cerium, dysprosium, and neodymium, to name a few), nickel, cobalt, and other strategically important metals dubbed ‘critical minerals’ by the US Department of Energy (US Federal Register 2023) (Canada, the EU, and other colonizer states have their own similar lists). Green capitalists benefit tremendously from the nasty combination of amnesia and willful ignorance in the belly of the “tech no logic” beast that John Trudell spoke of decades ago (Trudell 2008, Ketcham 2023).

I don’t really need to rehearse for you, dear reader of the ef! journal, the many overlapping reasons why one might oppose an extraction or infrastructure project, but here’s a few:

-it destroys an ecosystem, threatening the health and wellbeing of species of all kinds;

-the people said no: it violates Indigenous sovereignty and self-determination, or it violates Black self-determination and continues anti-Black violence, or it more generally does not have consent from the people who caretake and live in relation to those lands;

-the people said yes... but only through coercion and blackmail, with their backs against a wall, and therefore it still violates sovereignty, self-determination, and consent;

-it destroys sacred places, significant for all kinds of reasons, and threatens continuing spiritual practice;

-it contaminates, drains, or floods the water, hurting the immediate watershed as well as all life downstream;

-it introduces man camps, making things more violent and dangerous for everyone, but most especially Indigenous women and queer, trans, and two-spirit people;

-it makes the wealthiest blood-sucking leeches even wealthier, at the expense of us all;

-it feeds the military and/or prison industrial complex death-making machinery;

... and many other place-specific issues. For fossil fuel extraction, we can also add the fact that it contributes to greenhouse gas emissions.

Climate change may well kick all of us humans off this planet, a grotesquely generalized consequence for the actions and decisions of a narrow few, and it’s a real and compelling reason to oppose fossil fuel projects. However, it’s only one reason, and it’s being actively co-opted in service of empire, ecocide, and capitalism. If the aim is to simply replace fossil fuels with ‘green’ tech and maintain current energy consumption patterns in the consumerist global north, the math doesn’t math. Researchers have guessed that the demand for certain minerals like neodymium, a rare earth used to make magnets for wind turbines and electric vehicles, could grow by more than a dozen times by 2050 (Thompson 2018) and demand for lithium could grow by more than ten times by 2040 (Semuels and Cough 2023). These numbers obviously beg some questions: how is “demand” being measured here? What technological assumptions are these calculations based on? What global distribution of resources do these researchers assume? Overly simplistic supply-and-demand explanations are often a cover for reactionary bullshit, so I tread very carefully here. But the volume of material inputs that would be necessary to continue and expand current global energy patterns without fossil fuels—what green capitalism is seeking—

is staggering. When I think of what life will look like on an ever-warming planet, I'm scared for myself, my loved ones, our children, our children's children. But if we stop burning fossil fuels tomorrow and replace even part of global current demand for energy with so-called renewables, I'm just as scared to live in that world, with open-pit mines around every corner, or more likely, with open-pit mines hidden behind the many corners deemed sacrifice-able.

There's plenty of nuance to the specific impacts of mining different 'critical minerals,' from lithium to cerium to cobalt, but it's all hard-rock mining. Around the world, hard-rock mining operations are notorious for using massive quantities of water; poisoning soil, water, and air with radioactivity, heavy metals, and toxic gases; and concentrating harm, risk, and violence in historically overburdened communities while executives and colonizers reap the benefits. This is a familiar story.

But there are a few more geopolitical features of the 'critical minerals' landscape that I think are worth teasing out, to more fully populate our list of reasons why to tell the green tech industries to fuck off.

1) 'Critical minerals' are considered as such by colonizer states in part because of their importance for military tech.

Rare earth elements are crucial for producing weapons guidance systems, night-vision goggles, and lasers. Lithium, cobalt, and nickel are all key to the batteries that the government considers essential for "military preparedness" (White House, 2021) as much as for energy storage. This helps explain why the US government is currently falling all over itself to shore up its access to these materials, especially as its dominance as sole global superpower continues to slip and its ego, like that of a spoiled man-child, becomes more threatened. We know that this is all connected to the looming/arrived/arriving climate crisis in more ways than one. As things get more dire, guided by the lessons of history, we can expect the war-making, profit-seeking architects of empire to deploy ever-intensifying weapons of counter-insurgency to secure and maintain their power and control (Hayes, 2023). Our enemies want control over lithium and cobalt supplies not just to profit off of climate crisis (and there are enormous profits to be made), but to police those who dare challenge the current genocidal, ecocidal world order (see Stop Cop City RICO indictment). This also helps explain why the US government is so terrified that its geopolitical foes control such a large chunk of 'critical minerals' supply chains, leading me to...

2) The US is particularly threatened by Chinese dominance of 'critical minerals' supply chains, and the mining industry is playing on racist US nationalism to build public support for mining domestically.

China plays an outsized role in the mining and processing of several important 'critical minerals' the US is so worried about. For some time, Chinese mines supplied the vast majority of the world's rare earth elements, though that share has gone down in the last decade: 92% in 2010 (Liu 2016) and 55% in 2020 (Williams 2021). In 2020, Chinese refineries still produced 85% of all rare earth refined products. While Bolivia, Chile, Argentina, and Australia dominate global lithium mining, the supply chains required to produce lithium-ion batteries are complex, requiring sourcing of up to 20 different materials from different locations. China again dominates in lithium processing, with Japan and Korea. The electric car industry specifically is increasingly concentrated in South Korea, which sources 58% of its lithium, 64% of its cobalt, and 90% of its rare earth elements from China (Feffer 2023).

China-phobia alongside dependence on Chinese people to help produce and move around capitalism's material inputs is nothing new in this country; recall the Chinese Exclusion Act, for example, passed in 1882 to prohibit immigration of any Chinese laborers, after decades of Chinese people mining and building railroads before taking up low-wage care work in cities. I think it's possible to say, fuck those mines and fuck that railroad, while still seeing the hypocrisy. We also know that this is exactly how racism operates as a tool for capitalism. Regardless of whether the chicken or egg came first, the scientifically-authorized 'fact' of certain populations' inferiority conveniently justifies and naturalizes their exploitation. To me, the simultaneous demonization of China and dependence upon Chinese labor and land to produce the machines of today's "tech no logic" society become more meaningful when framed in this larger context.

And that dependence has come with a massive cost for China's land and people. In 2015, more than 50% of Chinese cities suffered acid rain, 70% of Chinese lakes and rivers were contaminated, and 90% of Chinese groundwater was contaminated. Water pollution causes an estimated 75% of disease in China, and China suffers the largest amount of new cancer cases in the world (Tian et al., 2020). These are staggering, sobering numbers, and according to Chinese officials, the reason for their attempt to cut rare earth exports in 2010. The environmental cost of acting as the world's factory was simply getting to be too much. However, the US, Japan, and Europe cried to the World Trade Organization (WTO), alleging protectionism and violation of the rules of free trade. The WTO predictably ruled against China. China's attempts to get pollution under control have been thwarted by a burgeoning black market, which makes no sense without massive demand for electronics, batteries, and military and green tech coming from the West. It's not just missiles and Teslas being produced with 'critical mineral' inputs; it's also phones, tablets, laptops, glass, generators, lighting, and many different kinds of electronics.

The US and its cronies like to talk about China's (debunked) "debt-trap diplomacy" (Jones and Hameiri 2020) and paint China like a predatory force in the global south. In reality, the world and especially the consumerist West, through the supply chains of multinational corporations, can operate as it does only by exploiting China's land and people (Liu 2016). Also, the US and Europe have no business talking about predatory behavior in the global south unless they acknowledge their own: the long arc of colonialism, from land theft and the trans-Atlantic slave trade to the Berlin Conference era and up through structural adjustment policies and neoliberal globalization. Very few Africans are confused about who colonized who (Jingjing 2022). And finally, we should be clear that there's more than a little red-scare McCarthyism mixed in with the US government's fear-mongering over the Chinese Communist Party. Don't take that bait.

3) No sacrifice zones here, no sacrifice zones anywhere.

The US government and the mining industry together are using all of the above as justification to push for mining and processing 'critical minerals' in the US. Horrific working conditions and abuses in cobalt mines in the Democratic Republic of Congo are also cited (Democracy Now! 2023). Hence tax rebates available in the Inflation Reduction Act for US buyers of electric cars if their purchases are built with domestically-sourced components. Hence Executive Orders signed in both 2017 and 2020 directing relevant agencies to "accelerate the issuance of permits" to mine domestically (US Federal Register 2017, 2020). Hence a breathtaking rush on lithium mining proposals in the Black Hills. Hence the US Department of Energy contributing nearly \$22 million to Rare Element Resources for a rare earths processing plant in Upton, WY. Hence NewRange/PolyMet in Minnesota (though, major sovereignty win there recently when the Army Corps of Engineers revoked a key permit because the project would violate the water quality standards of the Fond du Lac Band of Lake Superior Chippewa) (Karnowski 2023). Hence the US Department of Defense putting up \$90 million for Albemarle's Kings Mountain lithium mine in North Carolina and \$20.6 million for Talon Metals' Tamarack nickel mine in Minnesota (Deaux 2023). Hence Thacker Pass.

Hence Brent Berg, the President and CEO of Rare Element Resources, thanking the Nuclear Regulatory Commission for its permit approval near Upton: "I believe the growing awareness of the exposure our country faces due to China's monopoly on the rare earth supply chain has garnered ongoing support for our project" (Financial Post 2023).

Hence SD US Representative Dusty Johnson touring an open-pit gold mine in the Black Hills and saying: "We can't continue to give China coercive economic power over our country. We know that we are increasingly

looking to China for critical minerals... it's time for America to be smart enough to open some of our own new mines so we are not dependent on China" (Dennis 2023).

But of course, there's the issue of consent. It's been widely reported recently what percentage of 'critical mineral' reserves are located within 35 miles of reservation lands in the US (a fairly low bar, given how far ancestral and treaty-recognized lands were shrunk to arrive at the federal government's current recognized reservation boundaries): 68% of cobalt, 89% of copper, 79% of lithium, 97% of nickel (Aspen Institute 2023). I talked once with a self-satisfied worker with the BlueGreen Alliance who proudly told me that the answer to this whole mess, to avoid environmental catastrophe in China and child slavery in the DRC, is to mine and process here in the US, under stronger environmental law, "respecting Indigenous sovereignty and taking consultation seriously and doing it right." I pointed out that this was a liberal fairy tale and asked him, and what if the answer is no? And he just kind of sputtered.

Obviously it's easy to critique the BlueGreen Alliance. But I share this exchange, alongside the many issues associated with sourcing these materials from elsewhere in the world, just to underline that there's no easy technofix for this. In telling green tech industries to fuck off here, it feels important to not just leave the rest of the world to the ravages of Elon Musk. To actually address this problem meaningfully, which has more to do with sacrifice zones and colonial relationships to land than it does to greenhouse gas emissions, we've gotta diagnose it properly.

What would an internationalist opposition to this tangle of 'critical minerals' rhetoric look like? It would mean taking seriously the perspectives of the formerly colonized world, as outlined in the "Manifesto for an Ecosocial Energy Transition from the Peoples of the South" from earlier this year, for example (Peoples of the Global South 2023). It would mean tracking campaigns against rare earth mining in places like Madagascar (Randriamaro 2023) and Chile (Paley 2023) and responding to whatever asks are arising. It would mean calling bullshit on proposals to mine the deep sea, taking direction from Indigenous people who know very well why it's dangerous to pretend we're not connected to the ocean (Fernandez-Akamine 2023; Patel and Ngata 2023). It would mean rejecting bogus certification schemes like from the Initiative for Responsible Mining Assurance (IRMA), premised on the idea that green mining is possible (Yes To Life, No to Mining 2023). And of course, it would mean continuing to organize and take action alongside comrades here, on the lands the US occupies, like at Thacker Pass. No sacrifice zones here, no sacrifice zones anywhere.

Learn more:

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